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10/666,793	09/18/2003	Daniel James Matthews	GB920020065US1	9027

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EXAMINER
VERDI, KIMBLEANN C

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *18 September 2003*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-36* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-36* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *September 18, 2003* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the Application filed on September 18, 2003. Claims
1-36 are pending in the current application.

Drawings

1.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4)
because

    a.   reference characters "404" and "405" have both been used to designate
"commit the transaction", Figure 4;

    b.   reference characters "405" and "406" have both been used to designate
"commit the participant", Figure 4;

    c.   reference characters "1004" and "1104" have both been used to designate
"deliver message to MDB and wait for it to return", Figure 11.

    d.   reference characters "1203" and "1202" have both been used to designate
"pass message to transaction service", Figure 12.

2.   Figure 3 should be designated by a legend such as --Prior Art-- because only
that which is old is illustrated. See MPEP § 608.02(g).

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)
because they include the following reference character(s) not mentioned in the
description: 610, Figure 6, 711, Figure 7, 1307, Figure 13, and 1502, Figure 15.

4.   Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to
the specification to add the reference character(s) in the description in compliance with
37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5.   The abstract of the disclosure is objected to because line 12, the recitation of "message it added", should be "message is added". Correction is required. See MPEP § 608.01(b).

6.   The disclosure is objected to because of the following informalities:

     a.   page 26, line 12, the recitation of "706", should be "708";

     b.   page 31, line 6, the recitation of "709", should be "809"; and

     c.   Appropriate correction is required.

7.   The use of the trademark JAVA™, J2EE™, and MQSeries™, has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

8.   Claims 12, 24, and 36, are objected to because of the following informalities: line

2 the recitation of "acts as a acts as a nested transaction" should be "acts as a nested

transaction". Appropriate correction is required.

9.   Applicant is advised that should claims 10, 22, and 34 be found allowable, claims

11, 23, and 35 will be objected to under 37 CFR 1.75 as being a substantial duplicate

thereof. When two claims in an application are duplicates or else are so close in

content that they both cover the same thing, despite a slight difference in wording, it is

proper after allowing one claim to object to the other as being a substantial duplicate of

the allowed claim. See MPEP § 706.03(k).

Double Patenting

10.   The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. A nonstatutory
obviousness-type double patenting rejection is appropriate where the conflicting claims
are not identical, but at least one examined application claim is not patentably distinct
from the reference claim(s) because the examined application claim is either anticipated
by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140
F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29
USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.
1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422
F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).
      A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d)
may be used to overcome an actual or provisional rejection based on a nonstatutory
double patenting ground provided the conflicting application or patent either is shown to
be commonly owned with this application, or claims an invention made as a result of
activities undertaken within the scope of a joint research agreement.
      Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with
37 CFR 3.73(b).

11.   Claims 1-36 are provisionally rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claims 1-39 of

copending Application No. 10/448269 (hereinafter APP269). Although the conflicting

claims are not identical, they are not patentably distinct from each other because

APP269 is directed to the same invention for a messaging system which enables

transactional work, done as a result of a recipient processing an asynchronous

message, to be involved in the transaction under which message was sent. This is a

provisional obviousness-type double patenting rejection because the conflicting claims

have not in fact been patented.

As to claim 1, APP269 discloses a data processing method for a data processing

system comprising a messaging service and a transaction service, the method

comprising the steps of:

receiving a request, from a sender, to send an asynchronous message,

comprising message data, to a queue, wherein the request is received under the scope

of a transaction (claim 1, lines 5-8 of APP269);

registering a definition for the queue, the definition providing details of an

operation provided by the recipient (claim 5, lines 1-6 of APP269);

processing the request to send a message by delivering the message, prior to

completion of the transaction, to a recipient which is registered with the messaging

service to process messages from the queue wherein the message is delivered to the

recipient by calling the operation and including details of the message (claim 1, lines 10-

13 and claim 6, lines 10-17 of APP269);

receiving one or more requests to register involvement of one or more participants in the transaction, wherein each participant represents transactional work done as a result of the recipient processing the message (claim 1, lines 15-19 of APP269); and

completing the transaction wherein the completing step comprises instructing each of the one or more participants to complete (claim 1, lines 21-23 of APP269);

whereby transactional work done, as a result of the recipient processing the message, is involved in the transaction under the scope of which the message was sent (claim 1, lines 25-28 of APP269).

As to claims 2-12 these claims correspond to claims 3-13.

As to claim 13 this claim is rejected for the same reasons as claim 1, see the rejection to claim 1 above.

As to claims 14-24 these claims correspond to claims 16-26.

As to claim 25 this claim is rejected for the same reasons as claim 1, see the rejection to claim 1 above.

As to claims 26-36 these claims correspond to claims 29-39.

Claim Rejections - 35 USC § 101

12.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13.   Claims 25-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 25-36, "A computer program product comprising instructions" is being recited; however, it appears that a computer program product comprising instructions would reasonably be interpreted by one of ordinary skill in the art as software, per se. A computer program product comprising instructions as claimed does not set forth a means to realize the software, per se such as being stored in a memory or computer storage media. As such, it is believed that a computer program product comprising instructions of claims 25-36 is reasonably interpreted as functional descriptive material, per se.

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15.   Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Strategies for Integrating Messaging and Distributed Object Transactions", by Tai et al. (hereinafter Tai) in view of United States Patent 6,138,143 to Gigliotti et al. (hereinafter Gigliotti), and further in view of United States Patent 6,012,094 to Leymann et al. (hereinafter Leymann).

16.   As to claim 1, Tai teaches the invention substantially as claimed including a data processing method for a data processing system comprising a messaging service and a transaction service, the method comprising the steps of:

receiving a request, from a sender, to send an asynchronous message (page 314, lines 6-9), comprising message data (page 311, lines 6-10), to a queue (page 319, lines 30-31), wherein the request is received under the scope of a transaction (page 326, lines 30-31);

registering a definition for the queue (e.g. event channel for publishing event, col. 11, lines 19-25), the definition providing details of an operation provided by the recipient (e.g. data included in event, col. 7, lines 33-36);

processing the request to send a message by delivering the message (page 324, lines 5-7), prior to completion of the transaction, to a recipient, which is registered with the messaging service (e.g. recipient, subscriber, consumer page 312, lines 3-10) to process messages from the queue (page 323, lines 1-3).

Tai does not explicitly disclose wherein the message is delivered to the recipient by calling the operation and including details of the message;

receiving one or more requests to register involvement of one or more participants in the transaction, wherein each participant represents transactional work done as a result of the recipient processing the message; and

completing the transaction wherein the completing step comprises instructing each of the one or more participants to complete;

whereby transactional work done, as a result of the recipient processing the message, is involved in the transaction under the scope of which the message was sent.

However Gigliotti teaches receiving one or more requests to register involvement of one or more participants in the transaction (e.g. server objects, col. 7, lines 56-58), wherein each participant represents transactional work done (col. 7, lines 49-56) as a result of the recipient processing the message (e.g. event published by client, col. 7, lines 43-49); and

completing the transaction wherein the completing step comprises instructing each of the one or more participants to complete (e.g. all expected callbacks received, col. 8, lines 14-17);

whereby transactional work done, as a result of the recipient processing the message, is involved in the transaction under the scope of which the message was sent (e.g. Transaction Context, 206, Fig. 4, col. 12, lines 13-16).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the transaction context of Tai with the teachings of a transaction context from Gigliotti because this feature would have provided a mechanism to address the shortcomings in known systems for asynchronous transaction processing in a distributed computing environment (col. 3, lines 32-35) utilizing a Transaction context which includes methods to add a participant in a transaction, register commit or rollback votes from participants, and can commit or rollback an entire set of operations and allow related objects access to uncommitted data (col. 6, lines 17-22 of Gigliotti).

In addition However Leymann teaches wherein the message is delivered to the recipient by calling the operation (T11 requests processing of stratus S2, Fig. 8,

col. 13, line 22-24) and including details of the message (e.g. put message, col. 10,

lines 24-26).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have further modified the distributed transaction processing of

Tai as modified with Gigliotti with the teachings of transaction stratification from

Leymann because this feature would have further provided a mechanism to reduce the

network traffic required to coordinate a collection of potentially distributed transactions

(col. 13, lines 33-35 of Leymann).

17.   As to claim 2, Tai as modified teaches a method as claimed in claim 1 wherein

one of the one or more requests to register involvement one or more participants in the

transaction, registers involvement of the recipient as a participant in the transaction (col.

7, lines 56-58 of Gigliotti).

18.   As to claim 3, Tai as modified teaches a method as claimed in claim 2 wherein

the request to register the involvement of the recipient as a participant in the transaction

includes details of the queue (e.g. reference to client object in event, col. 8, lines 4-5 of

Gigliotti), wherein the completing step instructs the recipient to complete by sending one

or more messages to the queue (e.g. callback to client object, col. 8, lines 4-9 of

Gigliotti).

19.   As to claim 4, Tai as modified teaches a method as claimed in claim 2 wherein

the request to register the involvement of the recipient as a participant in the transaction

includes details of a second queue (e.g. 2nd event channel for publishing event, col. 11,

lines 19-25 of Gigliotti) wherein the completion step instructs the recipient to complete

by sending one or more messages to the second queue (e.g. S1 publishes new event

260, col. 11, lines 61-67 of Gigliotti).

20.   As to claim 5, Tai as modified teaches a method as claimed in claim 1 wherein

the transaction is a first transaction and the method comprises the further step of:

processing the message by the recipient (e.g. event published by client, col. 7,

lines 43-49 of Gigliotti);

wherein the step of processing of the message by the recipient comprises the

steps of:

informing a second transaction of the first transaction (T11 requests processing

of stratus S2, Fig. 8, col. 13, line 22-24 of Leymann), details of which were included with

the message (e.g. put message, col. 10, lines 24-26 of Leymann); and

calling a second recipient (e.g. stratus S4, Fig. 8 of Leymann) and as part of the

calling step passing the message data to the second recipient for processing under the

scope of the second transaction (e.g. T21 requests 821 processing of stratum S4, Fig.

8, col. 13,lines 26-29 of Leymann).

21.   As to claim 6, Tai as modified, teaches a method as claimed in claim 5 wherein

the processing of the message by the recipient comprises the further step of: starting

(e.g. request processing of Leymann) the second transaction (e.g. T21 requests 821

processing of stratum S4, Fig. 8, col. 13,lines 26-29 of Leymann).

22.   As to claim 7, Tai as modified teaches a method as claimed in claim 5 wherein

the processing of the message by the recipient comprises the further steps of:

prior to calling the second recipient, registering as a temporary participant in the

second transaction (S1 registers as participant in transaction context 206, Fig. 4, col.

11, lines 61-64 of Gigliotti); and

on return from calling the second recipient (e.g. publishes new event to which S3

262 subscribes, col. 11, lines 65-67 of Gigliotti), unregistering (e.g. callback client of

Gigliotti) as a temporary participant in the second transaction (col. 12, lines 5-9 of

Gigliotti).

23.   As to claim 8, Tai as modified teaches a method as claimed in claim 7 wherein as

part of the unregistering step (e.g. callback of Gigliotti) a vote is passed to the second

transaction, the vote comprising an indication as to whether the second transaction

should commit or rollback (S1 252 votes 268 with transaction context 206 to commit or

roll back the transaction, col. 12, lines 5-9 of Gigliotti).

24.   As to claim 9, Tai as modified teaches a method as claimed in claim 8 comprising

the further step of:

in response to the unregistering step including a vote comprising an indication

that the second transaction should rollback, marking the second transaction (e.g. store

in Vote Table, Fig. 3A of Gigliotti) as rollback only (col. 9, lines 2-4 of Gigliotti).

25.   As to claim 10, Tai as modified teaches a method as claimed in claim 5 wherein

the second transaction (e.g. stratum S4, Fig. 8 of Leymann) acts as a subordinate

transaction to the transaction (e.g. stratus S2, Fig. 8 of Leymann), details of which were

included with the message (e.g. T21 requests 821 processing of stratum S4, Fig. 8, col.

13,lines 26-29, using put message, col. 10, lines 24-26 of Leymann).

26.   As to claim 11, Tai as modified teaches a method according to claim 5 wherein

the second transaction (e.g. stratum S4, Fig. 8 of Leymann) acts as a nested

transaction within the transaction (e.g. stratus S2, Fig. 8 of Leymann), details of which

were included with the message (e.g. T21 requests 821 processing of stratum S4, Fig.

8, col. 13,lines 26-29, using put message, col. 10, lines 24-26 of Leymann).

27.   As to claim 12, Tai as modified teaches method as claimed in claim 8 wherein

the second transaction acts as a nested transaction within the transaction, details of

which were included with the message and the method comprises further the steps of:

        in response to the unregistering step (e.g. callback of Gigliotti) including a vote

comprising an indication that the second transaction should rollback (S1 252 votes 268

with transaction context 206 to commit or roll back the transaction, col. 12, lines 5-9 of

Gigliotti):

        rolling back the second transaction (col. 8, lines 19-20 of Gigliotti); and

        restoring the message to the queue (the creator sends a message to each

participant to rollback the transaction, col. 2, lines 43-46 of Gigliotti) (tx.rollback(), page

322, line 42 of Tai)

28.   As to claims 13-24, these claims are rejected for the same reasons as claims 1-

12 respectively, see the rejections to claims 1-12 above.

29.   As to claims 25-36, these claims are rejected for the same reasons as claims 1-

12 respectively, see the rejections to claims 1-12 above.

Conclusion

30.   The prior art made of record on the accompanying PTO-892 and not relied upon, is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571) 270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 23, 2007
KV